THE CLAIMS

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

1. (Original) A washing machine to dry laundry contained in a rotating tub by circulating air heated by a drying heater, comprising:

a condensing duct to guide the circulated air having passed through the rotating tub to be drawn to the drying heater;

a cold water supply unit to supply cold water to an inside of the condensing duct;

a water temperature detecting unit to detect temperatures of water condensed in the condensing duct through contact between the circulated air and the cold water; and

a controller to determine whether an end of a drying process is reached based on the temperatures of the water detected by the water temperature detecting unit, and to terminate the drying process according to a result of the determination.

2. (Original) The washing machine as set forth in claim 1, wherein the water temperature detecting unit is positioned in a lower portion of the condensing duct so that the water temperature detecting unit is submerged in the condensed water.

3. (Original) The washing machine as set forth in claim 2, further comprising:

an air outlet disposed in the lower portion of the condensing duct to pass the circulated air therethrough, wherein the water temperature detecting unit is disposed between the air outlet and a bottom of the condensing duct.

4. (Original) The washing machine as set forth in claim 1, wherein the cold water supply unit comprises:

a spray nozzle disposed in the condensing duct;

a cold water supply hose connected to the spray nozzle; and

a drying valve disposed in the cold water supply hose to selectively supply or cut off the cold water supplied from an external water source.

5. (Original) The washing machine as set forth in claim 1, further comprising:

a counter to accumulatively count a drying time while the drying process is performed, wherein the controller is provided with the accumulatively counted time from the counter to determine whether the end of the drying process is reached.

6. (Original) A washing machine to dry laundry contained in a rotating tub by circulating air heated by a drying heater, comprising:

a water temperature detecting unit to detect temperatures of water condensed through contact between the circulated air and cold water supplied from an external water source to dry the laundry;

a counter to accumulatively count a drying time while a drying process is performed; and

a controller to determine whether an end of the drying process is reached based on the temperatures of the water detected by the water temperature detecting unit and the drying time accumulatively counted by the counter, and to terminate the drying process according to a result of the determination.

7. (Original) The washing machine as set forth in claim 6, wherein the controller determines whether the end of the drying process is reached when the temperature of the water detected by the water temperature detecting unit decreases.

8. (Original) The washing machine as set forth in claim 6, wherein the controller determines whether the end of the drying process is reached by detecting the water temperatures at regular drying time intervals using the water temperature detecting unit, and comparing an accumulated temperature difference, which is calculated by accumulating temperature differences obtained in set sections, with a set value.

9. (Original) The washing machine as set forth in claim 8, wherein the controller further determines whether the end of the drying process is reached by increasing a number of detections if the accumulated temperature difference satisfy the set value, and by comparing the increased number of detections with a set number of detections corresponding to the accumulatively counted drying time.

10. (Original) A method of controlling a drying process of a washing machine to dry laundry contained in a rotating tub by circulating air heated by a drying heater, comprising:

detecting temperatures of water condensed through contact between the circulated air and cold water supplied from an external water source to dry the laundry; and

terminating a drying process if an end of the drying process is determined to be reached based upon the detected water temperatures.

11. (Original) The method as set forth in claim 10, wherein whether the end of the drying process is reached is determined by accumulatively counting a drying time while the drying process is performed and taking the accumulatively counted drying time into account.

12. (Original) The method as set forth in claim 10, wherein whether the end of the drying process is reached is determined when the detected water temperature decreases.

13. (Original) The method as set forth in claim 10, wherein whether the end of the drying process is reached is determined by detecting the water temperatures at regular drying time intervals, calculating an accumulated temperature difference by accumulating temperature differences obtained in set sections, and comparing the accumulated temperature difference with a set value.

14. (Original) The method as set forth in claim 13, wherein whether the end of the drying process is reached is further determined by increasing a number of detections and comparing the increased number of detections with a set number of detections corresponding to an accumulatively counted drying time.

15. (Original) A washing machine to dry laundry contained in a rotating tub by circulating air therethrough, comprising:

a heater;

a condensing duct to guide the circulated air from the rotating tub to the heater;

a water supplier to supply water to the condensing duct such that water is condensed from the circulated air in the condensing duct by communication between the circulated air and the supplied water;

a temperature detector to detect a temperature of the condensed water; and

a controller to terminate a drying process according to changes in the temperature of the condensed water.

16. (Original) A washing machine including a rotating tub to dry laundry, comprising:

a condensing duct to condense water from circulated air passing through the washing machine;

a temperature detector to detect a temperature of the condensed water; and

a controller to terminate a drying process according to changes in the temperature of the condensed water.

17. (Original) The washing machine as set forth in claim 16, wherein the temperature detector is positioned in a lower portion of the condensing duct so that the temperature detector is submerged in the condensed water.

18. (Original) The washing machine as set forth in claim 17, further comprising:

an air outlet disposed in the lower portion of the condensing duct to pass the circulated air therethrough, wherein the temperature detector is disposed between the air outlet and a bottom of the condensing duct.

19. (Original) The washing machine as set forth in claim 16, further comprising:

a water supplier to supply water to the condensing duct such that the condensed water is condensed in the condensing duct by communication between the circulated air and the supplied water, and comprises:

a spray nozzle disposed in the condensing duct;

a water supply hose connected to the spray nozzle; and

a drying valve disposed in the water supply hose to selectively supply the water supplied from an external water source.

20. (Original) The washing machine as set forth in claim 16, further comprising:

a counter to accumulatively count a drying time while the drying process is performed such that the controller is provided with the accumulatively counted drying time from the counter to determine whether an end of the drying process is reached to terminate the drying process.

21. (Original) A washing machine to dry laundry contained in a rotating tub by circulating air therethrough, comprising:

a temperature detector to detect a temperature of water condensed by communication between the circulated air and water supplied from an external water source;

a counter to accumulatively count a drying time while a drying process is performed; and

a controller to terminate the drying process according to changes in the temperature of the condensed water and the accumulatively counted drying time.

22. (Original) The washing machine as set forth in claim 21, wherein the controller determines whether to terminate the drying process based on the temperature of the condensed water detected by the temperature detector decreasing.

23. (Original) The washing machine as set forth in claim 21, wherein the controller determines whether to terminate the drying process by detecting the temperature of the condensed water at regular time intervals using the temperature detector, and comparing accumulated temperature differences, which are accumulated over corresponding ones of the regular time intervals, with a set value.

24. (Original) The washing machine as set forth in claim 23, wherein the controller further determines whether to terminate the drying process by increasing a number of detections of the temperature of the condensed water if the accumulated temperature difference satisfy the set value, and by comparing the increased number of detections with a set number of detections corresponding to the accumulatively counted drying time.

25. (Original) The washing machine as set forth in claim 16, further comprising:

a rotating tub;

a water tub provide surrounding the rotating tub, and having an opening with an air inlet formed therein and an air outlet formed in another surface of the water tub; and

a drying device to dry the laundry, and comprises:

a centrifugal fan mounted on the water tub and having an inlet and an outlet, and

a discharging duct connecting the outlet of the centrifugal fan with the air inlet of the water tub, the condensing duct being mounted remote from the opening of the water tub to connect the outlet of the centrifugal fan with an inlet thereof.

26. (Original) The washing machine as set forth in claim 25, wherein the drying device further comprises:

a drying heater disposed in the discharging duct so that hot air is supplied to an inside of the water tub; and

a condenser disposed in the condensing duct so that moisture is condensed and removed while vapor generated in the drying process moves through the condensing duct.

27. (Original) The washing machine as set forth in claim 25, wherein the drying device further comprises:

a drying heater disposed in the discharging duct so that hot air is supplied to an inside of the water tub; and

a condenser disposed in the condensing duct so that moisture is condensed and removed while vapor generated in the drying process moves through the condensing duct.

28. (Original) The washing machine as set forth in claim 25, wherein the condensing duct is curved to have a curvature in which one open surface thereof is adjacent to a back surface of the water tub and the inlet of the centrifugal fan.

29. (Original) The washing machine as set forth in claim 25, further comprising:

a discharge hose to discharge the condensed water, wherein the condensing duct includes a discharging conduit formed to discharge the condensed water therefrom, and one end of the discharging conduit is connected to the discharge hose, the temperature detector being disposed between the discharging conduit and the air outlet of the water tub.

30. (Original) The washing machine as set forth in claim 19, wherein the drying valve operates so that an amount of water collecting in the condensing duct is greater than an amount of water discharged through the discharging conduit, so that the water temperature detector is submerged in the collected water.

31. (Original) A method of controlling a drying process of a washing machine including a rotating to dry laundry by circulating air therethrough, comprising:

condensing water from the circulated air by communication between the circulated air and supplied water;

detecting changes in temperature of the condensed water; and

terminating a drying process if an end of the drying process is determined to be reached based upon the detected changes in the temperature of the condensed water.

32. (Original) The method as set forth in claim 31, wherein whether the end of the

drying process is reached is determined responsive to counting an accumulatively counted drying time while the drying process is performed.

33. (Original) The method as set forth in claim 31, wherein whether the end of the drying process is reached is determined when the detected water temperature decreases.

34. (Original) The method as set forth in claim 31, wherein whether the end of the drying process is reached is determined by:

detecting the water temperature at regular drying time intervals;

accumulating temperature differences, which are accumulated over corresponding ones of the regular time intervals; and

comparing the accumulated temperature difference with a set value.

35. (Original) The method as set forth in claim 34, wherein whether the end of the drying process is reached is further determined by:

increasing a number of detections; and

comparing the increased number of detections with a set number of detections corresponding to an accumulatively counted drying time.

36. (Original) The method as set forth in claim 33, wherein the terminating of the drying process comprises terminating the drying process when the temperature of the condensed water decreases by a predetermined amount.

37. (Original) The method as set forth in claim 33, further comprising:

controlling an opening of the drying valve, so that the water supplied is sprayed to an inside of the condensing duct by the spray nozzle.

38. (Original) The method as set forth in claim 33, further comprising:

calculating a difference between initial and final temperatures in each of the corresponding time intervals.